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08/373,953	01/17/95	DAVIS	J 1084

EXAMINER
BONCK, R

ART UNIT	PAPER NUMBER
3502	8

35M1/0131

ALAN D KAMRATH
PETERSON WICKS NEMER & KAMRATH
1407 SOO LINE BUILDING
105 SOUTH FIFTH STREET
MINNEAPOLIS MN 55402

DATE MAILED: 01/31/96

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on _____ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire three (3) month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☒ Notice of References Cited by Examiner, PTO-892.
2. ☒ Notice of Draftsman's Patent Drawing Review, PTO-948.
3. ☒ Notice of Art Cited by Applicant, PTO-1449. (5)
4. ☐ Notice of Informal Patent Application, PTO-152.
5. ☐ Information on How to Effect Drawing Changes, PTO-1474.
6. ☐ _____.

Part II SUMMARY OF ACTION

1. ☒ Claims 1 - 28 are pending in the application.
   Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1, 2, and 10 - 28 are rejected.
5. ☒ Claims 3 - 9 are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____. has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____ ; filed on _____.
13. ☐ Since this application apppears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

EXAMINER'S ACTION

Part III DETAILED ACTION

The following is a first action on the merits of application Serial No. 08/373,953, filed January 17, 1995, which is a continuation-in-part of application Serial No. 08/254,290, filed June 6, 1994, which is a continuation-in-part of application Serial No. 08/201,783, filed February 25, 1994.

Information Disclosure Statement

Receipt is acknowledged of the Information Disclosure Statements filed June 28, 1995 and July 13, 1995. Two of the German references cited on the fourth page of the June 28 Statement have not been considered because no statement of their relevance was provided. The documents cited in the July 13 Statement have not been considered because copies of the documents were not provided in this case, and there are no copies of these documents in either of the parent applications, S.N. 08/254,290 and 08/201,783.

Drawings

The drawings as filed have been approved by the Draftsperson.

Claim Rejections - 35 USC § 112

Claims 10-21 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 10 and 11 are indefinite because "the hub", line 2 of claim 10, has no proper antecedent basis. Claims 12-21 are indefinite because claim 12 includes contradictory language. The friction disc portion is said to be rotatably "independent from the input" in the second position;

but, when the friction disc portion is in the second position and the hub is driven at the second speed, one of the drive components is "carried by the input" and the other drive component is carried by the friction disc portion. Thus, the friction disc portion is apparently not rotatably independent from the input.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. § 102(b) as being anticipated by Linnig(Germany 3203143). Linnig provides a rotatable input 15 and an output 30, each including a friction engaging surface. Coil 13 and the return spring for friction surface 16 constitute means for engaging and disengaging the friction engaging surfaces. Linnig further provides an eddy current drive including permanent magnets 33 and a ring 34 of magnetic material, one fixed to the input and the other fixed to the output.

Claims 25-28 are rejected under 35 U.S.C. § 102(b) as being anticipated by Danly et al.('637). Danly et al. provide a rotatable input 66 and a rotatable output 54, each carrying first and second drive components 100, 56, respectively. Vanes 106 are located radially outward of the first and second drive components

for drawing air radially outwardly intermediate the first and second drive components. The output includes openings 58 radially inward of the drive components. First drive component 100 is mounted to the input 66 by an annular support which carries the vanes 106. The output 54 includes a mount having the openings 58.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

Claim 22 is rejected under 35 U.S.C. § 103 as being unpatentable over Takaki('230). The Takaki device is a brake disc for cooperation with the conventional brake caliper and, thus, does not have an input and output, the caliper being fixed. Brakes and clutches are so closely related, however, that a person having ordinary skill in this art would have recognized that the structure of Takaki would have been applicable to a clutch. The disc of Takaki has cooling fins 3b and 6. The fins 3b are at an acute angle to a radius and fins 6 are disposed on radial lines. Since all quadratures of the disc have both kinds of fins, the Takaki structure meets the claim limitation that the first and third quadratures have acute angle fins and the second and fourth quadratures have the radial fins. Because of the recognized similarity between clutches and brakes, it would have been obvious to provide the Takaki fin arrangement in a clutch.

Claims 23 and 24 are rejected under 35 U.S.C. § 103 as being unpatentable over Takaki as applied to claim 22 above, and further in view of Danly et al. Danly suggests providing radially outwardly disposed fins at 106 or 142 to draw cooling air radially outward past the drive components and to provide inwardly disposed openings, as at 58, 72, 140, or 138, for intake of cooling air. It would have been obvious to carry this teaching to Takaki, the motivation being to improve cooling air flow.

Allowable Subject Matter

Claims 3-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Miranti('239) is cited to show angled and radial fins, as at 40A and 46. Dayen et al.('986) is cited to show fins 106 and opening 84.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney H. Bonck whose telephone number is (703) 308-2904.

RODNEY H. BONCK
PRIMARY EXAMINER
ART UNIT 352

rhb
December 20, 1995